FORM PTO-1449	ATTY, DOCKET NO. I-2-0455.1US	SERIAL NO. 10/791,244
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLIC Yang	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE March 2, 2004	GROUP 2611
(Use several sheets if necessary)		

AMINER NITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
JATM/	5,412,620	05/1995	Cafarella et al.	1		
T I	5,487,069	01/1996	O'Sullivan et al.			
	5,559,757	09/1996	Catipovic et al.	1		
	5,577,066	11/1996	Schuchman et al.			
	5,612,978	03/1997	Blanchard et al.			
	5,805,638	09/1998	Liew			
	5,818,868	10/1998	Gaudenzi et al.			
	5,828,658	10/1998	Ottersten et al.			
	5,930,369	7/1999	Cox et al.			
	6,047,020	04/2000	Hottinen	1		
	6,097,753	08/2000	Ко			
	6,128,276	10/2000	Agee			
	6,137,848	10/2000	Chennakeshu et al.			
	6,141,393	10/2000	Thomas et al.			
	6,144,711	11/2000	Raleigh et al.	1 -		
	6,181,714	01/2001	Isaksson et al.			
	6,188,717	02/2001	Kaiser et al.			
	6,219,561	04/2001	Raleigh			
	6,289,005	09/2001	Katz			
	6,321,066	11/2001	Katz et al.			
	6,321,082	11/2001	Katz			
	6,320,903	11/2001	Isaksson et al.			
	6,359,926	03/2002	Isaksson et al.			
/	6,359,938	03/2002	Keevill et al.			
ΓM/	6,363,128	03/2002	Isaksson et al.			

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

04/01/2008

/Juan Torres/

Page 2 of 9

FORM PTO-1449	ATTY. DOCKET NO. I-2-0455.1US	SERIAL NO. 10/791,244		
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT Yang et al.			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE March 2, 2004	GROUP 2611		
(Use several sheets if necessary)				

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
ATM/	6,366,554	04/2002	Isaksson et al.			
1	6,377,632	04/2002	Paulraj et al.			
	6,392,595	05/2002	Katz et al.			
	6,396,801	05/2002	Upton et al.			
	6,438,174	08/2002	Isaksson et al.			
	6,445,342	09/2002	Thomas et al.			
	6,456,649	09/2002	Isaksson et al.			
	6,466,629	10/2002	Isaksson et al.			
	6,473,449	10/2002	Cafarella et al.			
	6,473,453	10/2002	Wilkinson			
	6,493,395	12/2002	Isaksson et al.			
	6,505,053	01/2003	Winters et al.			
	6,512,737	01/2003	Agee			
	6,538,986	03/2003	Isaksson et al.			
	6,553,012	04/2003	Katz			
	6,611,855	08/2003	Hellberg et al.			
	6,618,431	09/2003	Lee			
	6,643,526	11/2003	Katz			
	6,658,619	12/2003	Chen			
	6,680,969	01/2004	Molnar et al.			
	6,662,024	12/2003	Walton et al.			
	6,671,334	12/2003	Kuntz et al.			
	6,674,795	01/2004	Liu et al.			
	6,684,065	01/2004	Bult et al.			
V	6,693,953	02/2004	Cox et al.			
ATM/	6,700,919	03/2004	Papasakellarious			

EXAMINER DATE CONSIDERED /Juan Torres/ 04/01/2008

Page 3 of 9

FORM PTO-1449	ATTY. DOCKET NO. I-2-0455.1US	SERIAL NO. 10/791,244	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT Yang et al.		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE March 2, 2004	GROUP 2611	
(Use several sheets if necessary)			

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
ATM/	6,724,743	04/2004	Pigeonnat			
	6,729,929	05/2004	Sayers et al.			
	6,744,320	06/2004	Nguyen et al.			
	6,745,352	06/2004	Cheng			
	2002/0136158	09/2002	Frank			
	2002/145989	10/2002	De Parthapratim et al.			
	2003/0026201	02/2003	Arnesen			
	2003/0035491	02/2003	Walton et al.			
	2003/0043732	03/2003	Walton et al.			
	2003/0043767	03/2003	Pan et al.			
	2003/0043887	03/2003	Hudson			
	2003/0043925	03/2003	Stopler et al.			
	2003/0048856	03/2003	Ketchum et al.			
	2003/0058952	03/2003	Webster et al.			
	2003/0063557	04/2003	Mottier			
	2003/0072291	04/2003	Brunel			
	2003/0076908	04/2003	Huang et al.			
	2003/0076900	04/2003	Magee et al.			
	2003/0081781	05/2003	Jensen et al.			
	2003/0086366	05/2003	Branlund et al.			
	2003/0099216	05/2003	Nilsson et al.			
	2003/0103584	06/2003	Bjerke et al.			
	2003/0108117	06/2003	Ketchum et al.			
	2003/0112880	06/2003	Walton et al.			
V	2003/0123384	07/2003	Agee			
ATM/	2003/0125040	07/2003	Walton et al.			

EXAMINER DATE CONSIDERED
/Juan Torres/ 04/01/2008

Page 4 of 9

FORM PTO-1449	ATTY. DOCKET NO. I-2-0455.1US	SERIAL NO. 10/791,244	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT Yang et al.		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE March 2, 2004	GROUP 2611	
(Use several sheets if necessary)			

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
JATM/	2003/0128658	07/2003	Walton et al.				78
	2003/0129984	07/2003	Dent				79
	2003/0133403	07/2003	Castelain et al.				80
	2003/0147655	08/2003	Shattil				81
	2003/0152021	08/2003	Wang et al.				82
	2003/0165131	09/2003	Liang et al.				83
	2003/0185310	10/2003	Ketchum et al.				84
	2003/0210752	11/2003	Krupka				85
	2003/0215007	11/2003	Mottier				86
	2003/0216154	11/2003	Mennenga et al.				87
	2003/0227866	12/2003	Yamaguchi				88
	2003/0235255	12/2003	Ketchum et al.				89
	2004/0032354	02/2004	Knobel et al.				90
	2004/0032918	2/2004	Shor et al.				91
	2004/0052236	03/2004	Hwang et al.				92
	2004/0086027	05/2004	Shattil				93
	2004/0086035	05/2004	Upton et al.				94
	2004/0087275	05/2004	Sugar et al.				95
	2004/0095907	05/2004	Agee et al.				96
	2004/0100897	05/2004	Shattil				97
	2004/0101046	05/2004	Yang et al.				98
	2004/0116077	06/2004	Lee et al.				99
	2004/0120274	06/2004	Petre et al.				100
	2004/0120424	06/2004	Roberts				10:
V	2004/0136399	07/2004	Roberts				10:
/JATM/	2004/0141548	07/2004	Shattil				103

EXAMINER DATE CONSIDERED /Juan Torres/ 04/01/2008

/JATM/

								Page	5 of 9	
			FORM PTO-1449		ATTY, DOCKET NO. I-2-0455.1US		SERIAL I 10/791,2			
			DEPARTMENT OF COMMER ENT AND TRADEMARK OFF			PLICANT ng et al.				
		S	NFORMATION DISCLOSURE		FILING DATE March 2, 2004		GROU 2611	P		
		(0:	se several sheets if necessary	0						
	EXAMI INTO	NER AL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING APPR	DATE IF	
/J	MTA	/	2004/0142663	07/2004	Roberts					104
/J	MTM.	/	2004/0146024	07/2004	Li et al.					105
/.	JATN	1/	2004/0240595	12/2004	Raphaeli					106
			•	FOREIGN PATE	NT DOCUMENTS					
	EXAMI	NER						TRAN	SLATION	
			DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO	
/	JATN	Л/	0766468	04/1997	EP					107
			1017183	07/2000	EP					100
			1047209	10/2000	EP					109
	П		1063780	12/2000	EP					110
	П		1119146	07/2001	EP					111
	一		1130632	10/2001	<u>EP</u>					112
	П		1175022	01/2002	EP					113
	П		1255387	11/2002	EP					114
	П		1289182	03/2003	EP					115
	П		1300999	04/2003	EP					116
	П		1303094	04/2003	EP					117
	Н		1357693	10/2003	EP		<b>†</b>	П		118
	П	_	1365554	11/2003	EP		t	$\vdash$		
	Н	+	1379020	01/2004	EP		_			119
	$\Box$		1411693	04/2004	EP					121
	ᄇ	-	1002-0000240	05/1992	KR				×	122
	Н	-	1998-702348	07/1998	KB				X	122
	$\Box$	/ :	20000027178	05/2000	KB				Х	124
	-					-	-			125

EXAMINER DATE CONSIDERED
/Juan Torres/ 04/01/2008

KR

X\*\*

05/2003

2003-0034260

Page 6 of 9

50011070 1110	ATTI POOLET NO	OFFINAL NO.
FORM PTO-1449	ATTY. DOCKET NO.	SERIAL NO.
LLC DEDARTMENT OF COMMERCE	I-2-0455.1US	10/791,244
U.S. DEPARTMENT OF COMMERCE	APPLI	CANT
PATENT AND TRADEMARK OFFICE	Yang	
INFORMATION DISCLOSURE	FILING DATE	GROUP
STATEMENT BY APPLICANT	March 2, 2004	2611
(Use several sheets if necessary)		

EXAMINER						TRAN	SLATION	
INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO	1
ATM/	95/22859	08/1995	wo					1
	95/27349	10/1995	wo					1
	96/22638	07/1996	WO					1
	97/34421	09/1997	WO					
	97/35384	09/1997	wo					1
	97/48192	12/1997	WO				X	1
	98/09395	03/1998	WO					-
	98/10545	03/1998	wo					1
	98/10549	03/1998	WO					1
	98/10550	03/1998	WO					-
	98/10552	03/1998	wo					:
	98/10553	03/1998	wo					1
	98/10554	03/1998	wo					-
	98/10555	03/1998	WO					1
	98/18272	04/1998	wo					1
	98/36596	08/1998	WO					
	98/36598	08/1998	WO					1
	98/36599	08/1998	WO					1
	98/37638	08/1998	WO					1
	99/49602	09/1999	WO					1
	99/62280	12/1999	WO					1
	00/11823	03/2000	WO					1
$\top$	00/52872	09/2000	WO					1
$\nabla$	01/10065	02/2001	WO					1
ATM/	01/33761	05/2001	WO			-		1
	EXAMINER /Juan Torres/		DATE 04/01/20	CONSIDERE	D .			

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /JATM/

Page 7 of 9

FORM PTO-1449	ATTY. DOCKET NO. I-2-0455.1US	SERIAL NO. 10/791,244
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ICANT g et al.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE March 2, 2004	GROUP 2611
(Use several sheets if necessary)		

EXAMINER						TRAN	SLATION
INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
ATM/	01/33791	05/2001	wo				
	01/47202	06/2001	WO				
	01/47203	06/2001	WO				Х
$\Pi$	01/53932	07/2001	wo				
$\Pi$	01/54300	07/2001	WO				
П	01/54305	07/2001	WO				
П	02/29977	04/2002	WO				
	02/054601	07/2002	WO				
	02/054537	07/2001	wo				
$\Box$	02/061962	08/2002	WO				
П	02/067527	08/2002	WO				
П	02/073937	09/2002	wo				
П	02/080483	10/2002	wo				
$\blacksquare$	MO\083883	10/2002	WQ.				
	02/082683	10/2002	wo				
П	02/093779	11/2002	wo				
	02/093784	11/2002	wo				
	02/093819	11/2002	wo				
	03/005291	01/2003	wo				
	03/010898	02/2003	wo				
	03/015292	02/2003	wo				
	03/026237	03/2003	WO				
H	03/028270	04/2003	wo				
$\mathbf{V}$	03/044983	05/2003	WO				
/JATM/	03/081823	10/2003	wo				

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in

								aye	0013		
			FORM PTO-1449		ATTY, DOCKET NO. I-2-0455.1US		SERIAL I 10/791,2				
	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				PLICANT ng et al.						
			NFORMATION DISCLOSURE TATEMENT BY APPLICANT		FILING DATE March 2, 2004		GROU 2611	Р			
		(U	se several sheets if necessary	/)							
	EXAMINER							TRAN	SLATION	1	
	INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO	176	
/J	ATM/		03/084092	10/2003	wo					177	
			03/092212	11/2003	WO						
			2004/002047	12/2003	WO					178 179	
			2004/003743	01/2004	WO					180	
	П		2004/008704	01/2004	wo						
			2004/023704	03/2004	WO					181	
	-		2004/023704	03/2004	wo					182	
			2004/032347	04/2004	WO					183	
			2004/036345	04/2004	WO					184	
	$\Box$	_	2004/038984	05/2004	WO					185	
	V		2004/059935	07/2004	WO					186	
/JA	TM/		2004/064298	07/2004	WO					187	
				OTHER D	OCUMENTS						
	EXAMINER INITIAL		DESCF	RIPTION (Includ	ing Author, Title, Date, Pertiner	nt Pages, E	Etc.)		_		
/J	ATM/								188		
			BERETTA ET A	L., "Space-Time	multiuser detectors for TDD-U	TRA", IEE	E, Fall 200	1.		189	
			GOLUB ET AL., "Matrix Co	mputations," 3rd	Edition, The Johns Hopkins Ur 201-202, (1996).	niversity Pro	ess, Baltim	ore, M	D, pp.	190	
	GRAY, "Toeplitz and Circulant Matrices: A Review," available at <a ac<="" href="http://ee.stanford.edu/-gray/ttp://ee.sta&lt;/td&gt;&lt;td&gt;oeplitz&lt;/td&gt;&lt;td&gt;&lt;u&gt;.pdf&lt;/u&gt;&lt;/td&gt;&lt;td&gt;191&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;/J.&lt;/td&gt;&lt;td&gt;ATM/&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;HAYKIN, " td=""><td>laptive Filter The</td><td>eory", Third Edition, Prentice Ha</td><td>all, 1996, p</td><td>р. 87-93,</td><td></td><td></td><td>192</td></a>				laptive Filter The	eory", Third Edition, Prentice Ha	all, 1996, p	р. 87-93,			192
			EXAMINER /Juan Torres/		DATE C	ONSIDERE	D				

EXAMINER: hillfall if diation considered, whether or not clation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /JATM/

Page 9 of 9

FORM PTO-1449	ATTY, DOCKET NO. I-2-0455.1US	SERIAL NO. 10/791,244	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT Yang et al.		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE March 2, 2004	GROUP 2611	
(Use several sheets if necessary)			

		MINER ITIAL		DESCRIPTION (Including Author, Title, Date, Pertinent Pages, Etc.)		
/JA	TN	A/		KAY, "Fundamentals of Statistical Signal Processing: Estimation Theory," Prentice Hall, New Jersey, XP002428399, (1993). pages 391–392	193	
			*	MEYR ET AL., "Digital Communication Receivers: Synchronization, Channel Estimation, and Signal Processing," Wiley Interscience, New York, XP002428398, pp. 7 <del>00+171,</del> 782-783, (1938). pages 700-717	194	
			٠	SINN ET AL., "Efficient Data Detection Algorithms in Single and Multi-Carrier Systems Without the Necessity of a Guard Period," page 2739, left-hand column, figure 2.	195	
			•	SUN ET AL., "On the Convergence of the Inverses of Toeplitz Matrices and its Applications," IEEE Transactions on Information Theory, vol. 49, no.1, pp.180-190, (January 2003).	196	
				VOLLMER ET AL., "Comparative Study of Joint-Detection Techniques for TD-CDMA Based Mobile Radio Systems", IEEE Journal on Selected Areas in Communications, Vol. 19, No. 8, August 2001, pp. 1461-1475.	197	
	\			VOLLMER ET AL., "Joint-Detection using Fast Fourier Transforms in TD-CDMA based Mobile Radio Systems". 1999 (XP-002190679)	198	
/JA	ТΜ	V	*	WILLIAMSON ET AL., "Block Decision Feedback Equalization," IEEE Transactions on Communications, IEEE Service Center, Piscataway, New Jersey, vol. 40, no. 2, pp. 255-264, (February 1, 1992).		

\*\*English Abstract Only

EXAMINER	DATE CONSIDERED
/Juan Torres/	04/01/2008